

WHAT IS CLAIMED IS:

1. A nonaqueous electrolyte battery comprising a positive electrode including carbon fluoride as an active material, a negative electrode including calcium as an active material, and an electrolyte including an imide salt of calcium or a sulfonic acid salt of calcium.

2. The nonaqueous electrolyte battery according to claim 1, wherein the imide salt of calcium is a sulfonyl imide salt of calcium.

3. The nonaqueous electrolyte battery according to claim 2, wherein sulfonyl imide salt of calcium is an alkylsulfonyl imide salt of calcium.

4. The nonaqueous electrolyte battery according to claim 3, wherein the electrolyte includes calcium bis(trifluoromethylsulfonyl) imide, $\text{Ca}[\text{N}(\text{CF}_3\text{SO}_2)_2]_2$.

5. The nonaqueous electrolyte battery according to claim 1, wherein the sulfonic acid salt of calcium is an alkylsulfonic acid salt of calcium.

6. The nonaqueous electrolyte battery according to claim 5, wherein the alkylsulfonic acid salt of calcium is calcium trifluoromethanesulfonate, $\text{Ca}(\text{CF}_3\text{SO}_3)_2$.

7. A nonaqueous electrolyte battery comprising a positive electrode including sulfur as an active material, a negative electrode including calcium as an active material, and an electrolyte including a calcium salt.

8. The nonaqueous electrolyte battery according to claim 7, wherein the calcium salt includes at least one of an imide salt and sulfonic acid salt.

9. The nonaqueous electrolyte battery according to claim 8, wherein the imide salt is an alkylsulfonyl imide salt.

10. The nonaqueous electrolyte battery according to claim 9, wherein the alkylsulfonyl imide salt is calcium bis(trifluoromethylsulfonyl) imide, $\text{Ca}[\text{N}(\text{CF}_3\text{SO}_2)_2]_2$.

11. The nonaqueous electrolyte battery according to claim 8, wherein the sulfonic acid salt is an alkylsulfonic acid salt.

12. The nonaqueous electrolyte battery according to claim 11, wherein the alkylsulfonic acid salt is calcium trifluoromethanesulfonate, $\text{Ca}(\text{CF}_3\text{SO}_3)_2$.

13. The nonaqueous electrolyte battery according to claim 7, wherein the negative electrode includes at least one of calcium metals, calcium alloys, calcium oxides, silicon, carbon and sulfides of transition metals.